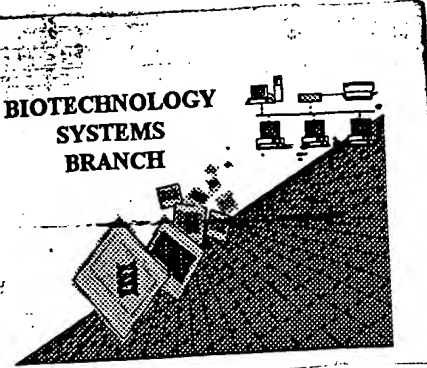


Lundgren

RAW SEQUENCE LISTING ERROR REPORT

BIOTECHNOLOGY
SYSTEMS
BRANCH



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/303,518

Source: 1631

Date Processed by STIC: 8/8/2000

RECEIVED

AUG 16 2000

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

TECH CENTER 1600/2900

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY
EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR FURTHER INFORMATION, PLEASE TELEPHONE MARK SPENCER,
703-308-4212.

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER
VERSION 3.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND
TRADEMARK OFFICE WEBSITE. SEE BELOW:

Checker Version 3.0

The Checker Version 3.0 application is a state-of-the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 - 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address:
<http://www.uspto.gov/web/offices/pac/checker>

Raw Sequence Listing Error Summary

paper # 10

ERROR DETECTED SUGGESTED CORRECTION

SERIAL NUMBER:

09/303,518

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1 Wrapped Nucleics The number/text at the end of each line "wrapped" down to the next line.
This may occur if your file was retrieved in a word processor after creating it.
Please adjust your right margin to .3, as this will prevent "wrapping".
- 2 Wrapped Aminos The amino acid number/text at the end of each line "wrapped" down to the next line.
This may occur if your file was retrieved in a word processor after creating it.
Please adjust your right margin to .3, as this will prevent "wrapping".
- 3 Incorrect Line Length The rules require that a line not exceed 72 characters in length. This includes spaces.
- 4 Misaligned Amino Acid The numbering under each 5th amino acid is misaligned. This may be caused by the use of tabs
Numbering between the numbering. It is recommended to delete any tabs and use spacing between the numbers.
- 5 Non-ASCII This file was not saved in ASCII (DOS) text, as required by the Sequence Rules.
Please ensure your subsequent submission is saved in ASCII text so that it can be processed.
- 6 Variable Length Sequence(s) contain n's or Xaa's which represented more than one residue.
As per the rules, each n or Xaa can only represent a single residue.
Please present the maximum number of each residue having variable length and
indicate in the (ix) feature section that some may be missing.
- 7 PatentIn ver. 2.0 "bug" A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid
sequence(s) . Normally, PatentIn would automatically generate this section from the
previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section
to the subsequent amino acid sequence. This applies primarily to the mandatory <220>-<223>
sections for Artificial or Unknown sequences.
- 8 Skipped Sequences Sequence(s) missing. If intentional, please use the following format for each skipped sequence:
(OLD RULES) (2) INFORMATION FOR SEQ ID NO:X:
(i) SEQUENCE CHARACTERISTICS:(Do not insert any headings under "SEQUENCE CHARACTERISTICS")
(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X:
This sequence is intentionally skipped

Please also adjust the "(iii) NUMBER OF SEQUENCES:" response to include the skipped sequence(s).
- 9 Skipped Sequences Sequence(s) missing. If intentional, please use the following format for each skipped sequence.
(NEW RULES) <210> sequence id number
<400> sequence id number
000
- 10 Use of n's or Xaa's Use of n's and/or Xaa's have been detected in the Sequence Listing.
(NEW RULES) Use of <220> to <223> is MANDATORY if n's or Xaa's are present.
In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
- 11 Use of <213>Organism Sequence(s) are missing this mandatory field or its response.
(NEW RULES)
- 12 Use of <220>Feature Sequence(s) are missing the <220>Feature and associated headings.
(NEW RULES) Use of <220> to <223> is MANDATORY if <213>ORGANISM is "Artificial" or "Unknown"
Please explain source of genetic material in <220> to <223> section.
(See "Federal Register," 6/01/98, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of new Rules)
- 13 PatentIn ver. 2.0 "bug" Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted
file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing).
Instead, please use "File Manager" or any other means to copy file to floppy disk.

RECEIVED
AUG 16 2000
TECH CENTER 1600/2900

J. Lundgren

1631

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/303,518

DATE: 08/08/2000
TIME: 16:36:06

Input Set : C:\JUMBOS\PPP.app
Output Set: N:\CRF3\08082000\I303518.raw

Does Not Comply
Corrected Diskette Needed

see pp 2,5

3 <110> APPLICANT: Scalato, Enzo
4 Masignani, Vega
5 Rappuoli, Rino
6 Pizza, Mariagrazia
7 Grandi, Guido
9 <120> TITLE OF INVENTION: Neisserial Antigens
11 <130> FILE REFERENCE: CHIR0160
13 <140> CURRENT APPLICATION NUMBER: 09/303,518
14 <141> CURRENT FILING DATE: 1999-04-30
16 <150> PRIOR APPLICATION NUMBER: PCT/IB98/01665
17 <151> PRIOR FILING DATE: 1998-10-09
19 <160> NUMBER OF SEQ ID NOS: 1098
21 <170> SOFTWARE: PatentIn Ver. 2.1
23 <210> SEQ ID NO: 1
24 <211> LENGTH: 506
25 <212> TYPE: DNA
26 <213> ORGANISM: Neisseria meningitidis
28 <220> FEATURE:
29 <221> NAME/KEY: unsure
30 <222> LOCATION: (18)
31 <223> OTHER INFORMATION: N=Unknown
33 <220> FEATURE:
34 <221> NAME/KEY: unsure
35 <222> LOCATION: (102)
36 <223> OTHER INFORMATION: N=Unknown
38 <220> FEATURE:
39 <221> NAME/KEY: unsure
40 <222> LOCATION: (154)
41 <223> OTHER INFORMATION: N=Unknown
43 <220> FEATURE:
44 <221> NAME/KEY: unsure
45 <222> LOCATION: (276)
46 <223> OTHER INFORMATION: N=Unknown
48 <400> SEQUENCE: 1

what about 'n' at position 67?

what about 'n' at position 487?

W--> 49 atgaaacaga cagtcaanat gcttgccgcc gccctgattg ccttgggctt gaaccgacgg 60
W--> 50 gtgtggggg atgacgtatc ggattttcgg gaaagacttg angcggcagc acagggaagt 120
W--> 51 gcagcagccc aatacaattt gggcgcaatg tatntacaaa ggacgcgcgt gcgcccggat 180
52 gatgctgaag cggtcagatg gtatcggcag ccggcggaac aggggttagc ccaagcccaa 240
W--> 53 tacaatttgg gctggatgta tgccaacggg cgcgcngtgc gccaaagatg taccgaagcg 300
54 gtcagatggt atcggcaggg ggcagcgagc ggggttgccc aagcccaata caatttgggc 360
55 gtgatatatg ccgaaggacg tggagtgcgc caagacgatg tcgaagcggt cagatgggtt 420
56 cggcagggcg cagcgagggg ggtagcccaa gcccaaaaca atttgggcgt gatgtatgcc 480
W--> 57 gaaagatgc gcgtgcgcca agaccg 506
60 <210> SEQ ID NO: 2
61 <211> LENGTH: 168
62 <212> TYPE: PRT
63 <213> ORGANISM: Neisseria meningitidis

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/303,518

DATE: 08/08/2000
 TIME: 16:36:06

Input Set : C:\JUMBOS\PPP.app
 Output Set: N:\CRF3\08082000\I303518.raw

65 <400> SEQUENCE: 2
 W--> 66 Met Lys Gln Thr Val Xaa Met Leu Ala Ala Ala Leu Ile Ala Leu Gly
 67 1 5 10 15
 W--> 69 Leu Asn Arg Pro Val Trp Xaa Asp Asp Val Ser Asp Phe Arg Glu Asn
 70 20 25 30
 W--> 72 Leu Xaa Ala Ala Ala Gln Gly Asn Ala Ala Ala Gln Tyr Asn Leu Gly
 73 35 40 45
 W--> 75 Ala Met Tyr Xaa Gln Arg Thr Arg Val Arg Arg Asp Asp Ala Glu Ala
 76 50 55 60
 78 Val Arg Trp Tyr Arg Gln Pro Ala Glu Gln Gly Leu Ala Gln Ala Gln
 79 65 70 75 80
 W--> 81 Tyr Asn Leu Gly Trp Met Tyr Ala Asn Gly Arg Xaa Val Arg Gln Asp
 82 85 90 95
 84 Asp Thr Glu Ala Val Arg Trp Tyr Arg Gln Ala Ala Ala Gln Gly Val
 85 100 105 110
 87 Val Gln Ala Gln Tyr Asn Leu Gly Val Ile Tyr Ala Glu Gly Arg Gly
 88 115 120 125
 90 Val Arg Gln Asp Asp Val Glu Ala Val Arg Trp Phe Arg Gln Ala Ala
 91 130 135 140
 93 Ala Gln Gly Val Ala Gln Ala Gln Asn Asn Leu Gly Val Met Tyr Ala
 94 145 150 155 160
 W--> 96 Glu Arg Xaa Arg Val Arg Gln Asp
 97 165
 100 <210> SEQ ID NO: 3
 101 <211> LENGTH: 597
 102 <212> TYPE: DNA
 103 <213> ORGANISM: Neisseria meningitidis
 105 <400> SEQUENCE: 3
 106 atgaacacaga cagtcaaatg gcttgccgcc gccctgattg ccttgggctt gaaccgagcg 60
 107 gtgtggggcg atgacgtatc ggattttcgg gaaaacttgc aggcggcgagc acagggaaat 120
 108 gcagcagccc aatacaattt gggcgcaatg tattacaaag gacgcggcgt gcgcccggat 180
 109 gatgctgaag cggtcagatg gtatcggcag cgcggcggaac aggggttagc ccaagcccaa 240
 110 tacaattttg gctggatgta tgccaacggg cgcggcgtgc gccaaagatg taccgaagcg 300
 111 gtcagatggt atcggcaggc ggcagcgcaag ggggttgctc aagcccaata caatttgggc 360
 112 gtgatatatg ccgaaggacg tggagtgcgc caagacgatg tcgaagcggt cagatggttt 420
 113 cggcaggcgg cagcgcaggg ggtagcccaa gcccaaaaca atttggcggt gatgtatgcc 480
 114 gaaagacgcg gcgtgcgcca agaccgcgcc cttgcacaag aatggtttgg caaggcttgt 540
 115 caaacggag accaagacgg ctgcgacaat gaccaacgcc tgaaggcggt ttattga 597
 118 <210> SEQ ID NO: 4
 119 <211> LENGTH: 198
 120 <212> TYPE: PRT
 121 <213> ORGANISM: Neisseria meningitidis
 123 <400> SEQUENCE: 4
 124 Met Lys Gln Thr Val Lys Trp Leu Ala Ala Ala Leu Ile Ala Leu Gly
 125 1 5 10 15
 127 Leu Asn Arg Ala Val Trp Ala Asp Asp Val Ser Asp Phe Arg Glu Asn
 128 20 25 30
 130 Leu Gln Ala Ala Ala Gln Gly Asn Ala Ala Ala Gln Tyr Asn Leu Gly
 131 35 40 45

*all item 10 on
 Err summary
 sheet*

RAW SEQUENCE LISTING DATE: 08/08/2000
 PATENT APPLICATION: US/09/303,518 TIME: 16:36:06

Input Set : C:\JUMBOS\PPP.app
 Output Set: N:\CRF3\08082000\I303518.raw

133 Ala Met Tyr Tyr Lys Gly Arg Gly Val Arg Arg Asp Asp Ala Glu Ala
 134 50 55 60
 136 Val Arg Trp Tyr Arg Gln Ala Ala Glu Gln Gly Leu Ala Gln Ala Gln
 137 65 70 75 80
 139 Tyr Asn Leu Gly Trp Met Tyr Ala Asn Gly Arg Gly Val Arg Gln Asp
 140 85 90 95
 142 Asp Thr Glu Ala Val Arg Trp Tyr Arg Gln Ala Ala Ala Gln Gly Val
 143 100 105 110
 145 Val Gln Ala Gln Tyr Asn Leu Gly Val Ile Tyr Ala Glu Gly Arg Gly
 146 115 120 125
 148 Val Arg Gln Asp Asp Val Glu Ala Val Arg Trp Phe Arg Gln Ala Ala
 149 130 135 140
 151 Ala Gln Gly Val Ala Gln Ala Gln Asn Asn Leu Gly Val Met Tyr Ala
 152 145 150 155 160
 154 Glu Arg Arg Gly Val Arg Gln Asp Arg Ala Leu Ala Gln Glu Trp Phe
 155 165 170 175
 157 Gly Lys Ala Cys Gln Asn Gly Asp Gln Asp Gly Cys Asp Asn Asp Gln
 158 180 185 190
 160 Arg Leu Lys Ala Gly Tyr
 161 195
 164 <210> SEQ ID NO: 5
 165 <211> LENGTH: 273
 166 <212> TYPE: DNA
 167 <213> ORGANISM: Neisseria meningitidis
 169 <400> SEQUENCE: 5
 170 atgaaacaga cagtcaaatg gcttgccgcc gccctgattg ccttgaggctt gaaccaagcg 60
 171 gtgtgggcyg atgacgtatc ggattttcgg gaaaacttgc aggcggcagc acagggaaat 120
 172 gcagcagccc aaaacaattt ggccgtgatg tatgccgaaa gacgcggcgt gcgccaagac 180
 173 cgcgcccttg cacaagaatg gcttggcaag gcttgtcaaa acgataacca agacagctgc 240
 174 gacaatgacc aacgcctgaa agcgggttat tga 273
 177 <210> SEQ ID NO: 6
 178 <211> LENGTH: 90
 179 <212> TYPE: PRT
 180 <213> ORGANISM: Neisseria meningitidis
 182 <400> SEQUENCE: 6
 183 Met Lys Gln Thr Val Lys Trp Leu Ala Ala Ala Leu Ile Ala Leu Gly
 184 1 5 10 15
 186 Leu Asn Gln Ala Val Trp Ala Asp Asp Val Ser Asp Phe Arg Glu Asn
 187 20 25 30
 189 Leu Gln Ala Ala Ala Gln Gly Asn Ala Ala Ala Gln Asn Asn Leu Gly
 190 35 40 45
 192 Val Met Tyr Ala Glu Arg Arg Gly Val Arg Gln Asp Arg Ala Leu Ala
 193 50 55 60
 195 Gln Glu Trp Leu Gly Lys Ala Cys Gln Asn Gly Tyr Gln Asp Ser Cys
 196 65 70 75 80
 198 Asp Asn Asp Gln Arg Leu Lys Ala Gly Tyr
 199 85 90
 202 <210> SEQ ID NO: 7
 203 <211> LENGTH: 381

RECEIVED

AUG 15 2000

TECH CENTER 1600/2900

RAW SEQUENCE LISTING DATE: 08/08/2000
 PATENT APPLICATION: US/09/303,518 TIME: 16:36:06

Input Set : C:\JUMBOS\PPP.app
 Output Set: N:\CRF3\08082000\I303518.raw

204 <212> TYPE: DNA
 205 <213> ORGANISM: Neisseria gonorrhoeae
 207 <400> SEQUENCE: 7
 208 atgaaacaga cagtcaaatg gcttgccgcc gccctgattg ccttgggctt gaaccaagcg 60
 209 gtgtgggccc gtgacgtatc ggattttcgg gaaaacttgc aggcggcaga acagggaaaat 120
 210 gcagcagccc aattcaattt gggcgtgatg tatgaaaatg gacaaggagt tcgtcaagat 180
 211 tatgtacagg cagtgcagtg gtatcgcaag gcttcagaac aaggggatgc ccaagcccaa 240
 212 tacaatttgg gcttgatgta ttacgatgga cgcggcgtgc gccaaagacct tgcgctcgct 300
 213 caacaatggc ttggcaaggc ttgtcaaaac ggagacccaa acagctgcga caatgaccaa 360
 214 cgcctgaagg cgggttatta a 381
 217 <210> SEQ ID NO: 8
 218 <211> LENGTH: 126
 219 <212> TYPE: PRT
 220 <213> ORGANISM: Neisseria meningitidis
 222 <400> SEQUENCE: 8
 223 Met Lys Gln Thr Val Lys Trp Leu Ala Ala Leu Ile Ala Leu Gly
 224 1 5 10 15
 226 Leu Asn Gln Ala Val Trp Ala Gly Asp Val Ser Asp Phe Arg Glu Asn
 227 20 25 30
 229 Leu Gln Ala Ala Glu Gln Gly Asn Ala Ala Ala Gln Phe Asn Leu Gly
 230 35 40 45
 232 Val Met Tyr Glu Asn Gly Gln Gly Val Arg Gln Asp Tyr Val Gln Ala
 233 50 55 60
 235 Val Gln Trp Tyr Arg Lys Ala Ser Glu Gln Gly Asp Ala Gln Ala Gln
 236 65 70 75 80
 238 Tyr Asn Leu Gly Leu Met Tyr Tyr Asp Gly Arg Gly Val Arg Gln Asp
 239 85 90 95
 241 Leu Ala Leu Ala Gln Gln Trp Leu Gly Lys Ala Cys Gln Asn Gly Asp
 242 100 105 110
 244 Gln Asn Ser Cys Asp Asn Asp Gln Arg Leu Lys Ala Gly Tyr
 245 115 120 125
 248 <210> SEQ ID NO: 9
 249 <211> LENGTH: 357
 250 <212> TYPE: DNA
 251 <213> ORGANISM: Neisseria meningitidis
 253 <400> SEQUENCE: 9
 254 ttccggcgaca tcggcggttt gaaggtcaat gcccccgta aatccgcagg cgtattggctc 60
 255 gggcgcgtcg gcgctatcgg acttgaccgc aaatcctatc aggcgagggg gcgcctcgat 120
 256 ttggacggca agtatcagtt cagcagcgac gtttcgcgc aaatcctgac ttcsggactt 180
 257 ttgggcgagc agtacatcgg gctgcagcag ggcggcgaca cggaaaacct tgctgccggc 240
 258 gacaccatct ccgtaaccag ttctgcaatg gttctggaac accctatcgg caaattcatg 300
 259 acgagttttg ccgagaaaaa tgccgacggc ggcaatgcgg aaaaagccgc cgaataa 357
 262 <210> SEQ ID NO: 10
 263 <211> LENGTH: 118
 264 <212> TYPE: PRT
 265 <213> ORGANISM: Neisseria meningitidis
 267 <400> SEQUENCE: 10
 268 Phe Gly Asp Ile Gly Gly Leu Lys Val Asn Ala Pro Val Lys Ser Ala
 269 1 5 10 15

RECEIVED

AUG 16 2000

TECH CENTER 1600/2900

RAW SEQUENCE LISTING DATE: 08/08/2000
 PATENT APPLICATION: US/09/303,518 TIME: 16:36:06

Input Set : C:\JUMBOS\Opp.app
 Output Set: N:\CRF3\08082000\I303518.raw

271 Gly Val Leu Val Gly Arg Val Gly Ala Ile Gly Leu Asp Pro Lys Ser
 272 20 25 30
 274 Tyr Gln Ala Arg Val Arg Leu Asp Leu Asp Gly Lys Tyr Gln Phe Ser
 275 35 40 45
 277 Ser Asp Val Ser Ala Gln Ile Leu Thr Ser Gly Leu Leu Gly Glu Gln
 278 50 55 60
 280 Tyr Ile Gly Leu Gln Gln Gly Gly Asp Thr Glu Asn Leu Ala Ala Gly
 281 65 70 75 80
 283 Asp Thr Ile Ser Val Thr Ser Ser Ala Met Val Leu Glu Asn Leu Ile
 284 85 90 95
 286 Gly Lys Phe Met Thr Ser Phe Ala Glu Lys Asn Ala Asp Gly Gly Asn
 287 100 105 110
 289 Ala Glu Lys Ala Ala Glu
 290 115
 293 <210> SEQ ID NO: 11
 294 <211> LENGTH: 859
 295 <212> TYPE: DNA
 296 <213> ORGANISM: Neisseria meningitidis
 298 <220> FEATURE:
 299 <221> NAME/KEY: unsure
 300 <222> LOCATION: (495)
 301 <223> OTHER INFORMATION: N = Unknown
 303 <400> SEQUENCE: 11
 304 attttgatatt acctcatccg caagaatcta ggttcgcccg tctttcttctt tcaggaacgc 60
 305 cccggaaaagg acggaaaacc ttttaaaatg gtcaaatctc gttccatgcg cgacggcttg 120
 306 tattcagacg gcattccgct gcccgacgga gaacgcctga caccgttcgg caaaaaactg 180
 307 cgtgccgcca gtwtggaaga actgcctgaa ttatggaata tcttaaaagg cgagatgagc 240
 308 ctggctggcc cccgcccgcg gctgatgcaa tatctgcccg tgtacgacaa ctccaaaaac 300
 309 cgccgccacg aatgaaacc cgccattacc ggctggggcg aggtcaacgg gcgcaacgcg 360
 310 ttttcgtggg acgaaaaatt cgccgtgcggt gtttggtata tcgaccactt cagcctgtgc 420
 311 ctogacatca aaatcctact gctgacggtt aaaaaagtat taatcaagga agggatttcc 480
 312 gcacagggcg aacaaaccat gccccttttc acaggaaaac gcaaaactgc cgtcgtcggt 540
 313 gcgggcggac acgaaaaagt cgttgccgac cttgccgccc cactcggccg gtacagggaa 600
 314 atcgtttttc tggacgacgc cgcacaaggg agcgtcaacg gcttttccgt catcggcagc 660
 315 acgctgctgc ttgaaaacag ttatcgccc gaacaatacg acgtcgccgt cgcctgcggc 720
 316 aacaaccgca tccgccgcca aatcgccgaa aaagccgccc cgctcggctt cgccctgccc 780
 317 gtactggttc atccggacgc gaccgtctcg ccttctgcaa cagtcggaca aggcagcgctc 840
 318 gttatggcga aagcggctg 859
 321 <210> SEQ ID NO: 12
 322 <211> LENGTH: 286
 323 <212> TYPE: PRT
 324 <213> ORGANISM: Neisseria meningitidis
 326 <400> SEQUENCE: 12
 327 Ile Leu Ile Tyr Leu Ile Arg Lys Asn Leu Gly Ser Pro Val Phe Phe
 328 1 5 10 15
 330 Phe Gln Glu Arg Pro Gly Lys Asp Gly Lys Pro Phe Lys Met Val Lys
 331 20 25 30
 333 Phe Arg Ser Met Arg Asp Gly Leu Tyr Ser Asp Gly Ile Pro Leu Pro
 334 35 40 45

RECEIVED

AUG 16 2000

TECH CENTER 1600/2900

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

VERIFICATION SUMMARY DATE: 08/08/2000
PATENT APPLICATION: US/09/303,518 TIME: 16:36:07

Input Set : C:\JUMBOS\PPP.app
Output Set: N:\CRF3\08082000\I303518.raw

L:49 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:50 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:51 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:53 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:57 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:66 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:2
L:66 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:2
L:66 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:2
L:66 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:2
L:66 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:2
L:69 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:2
L:69 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:2
L:69 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:2
L:69 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:2
M:340 Repeated in SeqNo=2
L:72 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:2
L:72 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:2
L:72 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:2
L:72 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:2
L:75 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:2
L:75 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:2
L:75 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:2
L:75 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:2
L:81 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:2
L:81 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:2
L:81 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:2
L:81 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:2
L:96 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:2
L:96 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:2
L:96 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:2
L:96 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:2
L:312 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:339 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:12
L:339 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12
L:339 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:339 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:12
L:339 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:12
L:357 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:12
L:357 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12
L:357 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:357 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:12
M:340 Repeated in SeqNo=12
L:743 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19
L:746 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19
L:772 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20
L:781 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20
L:784 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20
L:881 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:23

VERIFICATION SUMMARY

DATE: 08/08/2000

PATENT APPLICATION: US/09/303,518

TIME: 16:36:07

Input Set : C:\JUMBOS\PPP.app

Output Set: N:\CRF3\08082000\I303518.raw

L:881 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:23
L:881 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:23
L:881 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:23
L:881 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:23
L:892 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:23
L:892 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:23
L:892 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:23
L:892 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:23
M:340 Repeated in SeqNo=23
L:893 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:23
L:893 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:23
L:893 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:23
L:893 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:23
L:894 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:23
L:894 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:23
L:894 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:23
L:894 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:23
L:895 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:23
L:895 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:23
L:905 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:24
M:340 Repeated in SeqNo=24
L:974 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25
L:1174 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:30
M:340 Repeated in SeqNo=30
L:1391 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35
L:1762 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:43
M:340 Repeated in SeqNo=43
L:1810 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:44
M:340 Repeated in SeqNo=44
L:1927 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45
L:2220 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:50
L:2387 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:53
M:340 Repeated in SeqNo=53
L:2423 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:54
M:340 Repeated in SeqNo=54
L:2540 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:55
L:2762 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:59
L:2764 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:59
L:2765 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:59
L:2766 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:59
L:2783 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:60
M:340 Repeated in SeqNo=60
L:2808 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:61
M:340 Repeated in SeqNo=61
L:2829 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:62
M:340 Repeated in SeqNo=62
L:2962 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:67
L:2972 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:68
M:340 Repeated in SeqNo=68

RECEIVED

AUG 16 2000

TECH CENTER 1600/2900

VERIFICATION SUMMARY DATE: 08/08/2000
PATENT APPLICATION: US/09/303,518 TIME: 16:36:07

Input Set : C:\JUMBOS\Ppp.app
Output Set: N:\CRF3\08082000\I303518.raw

L:3155 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:73
L:3275 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:77
L:3297 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:78
M:340 Repeated in SeqNo=78
L:3638 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:85
L:3646 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:85
L:3668 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:86
L:3719 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:87
L:3774 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:88
L:3872 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:91
L:4135 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:99
M:340 Repeated in SeqNo=99
L:4169 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:100
M:340 Repeated in SeqNo=100
L:4269 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:103
L:4271 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:103
L:4273 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:103
L:4274 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:103
L:4292 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:104
M:340 Repeated in SeqNo=104
L:4688 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:109
L:4985 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:113
L:4990 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:113
L:5003 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:113
L:5004 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:113
L:5025 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:114
M:340 Repeated in SeqNo=114
L:5262 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:117
L:5338 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:118
L:5392 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:119
L:5666 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:124
L:5812 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:127
M:340 Repeated in SeqNo=127
L:5847 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:128
M:340 Repeated in SeqNo=128
L:5937 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:129
L:6143 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:133
L:6168 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:134
M:340 Repeated in SeqNo=134
L:6661 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:141
M:340 Repeated in SeqNo=141
L:6772 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:144
L:6928 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:147
L:6932 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:147
L:6933 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:147
L:6935 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:147
L:6936 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:147
L:7348 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:155
L:7349 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:155

VERIFICATION SUMMARY
PATENT APPLICATION: US/09/303,518

DATE: 08/08/2000
TIME: 16:36:07

Input Set : C:\JUMBOS\PPP.app
Output Set: N:\CRF3\08082000\I303518.raw

L:7351 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:155
L:7352 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:155
L:7616 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:163
L:8383 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:181

RECEIVED
AUG 16 2000
TECH CENTER 1600/2900

8/8/00